

were not nesting. Their principal occupation seemed to be robbing the Boobies and Gannets of their food. The natives said they nested in November, but I had no opportunity of proving this.

On June 24th, 1898, I visited Beacon Island, a small rock in the heart of the S.E. trade-wind, about five miles from Port Victoria, Mahé, Seychelles group. The landing was very difficult, the swell being heavy, but I managed to jump ashore. Generally this island is inaccessible, as the sea breaks all round it, except in the finest weather, and there is always a swell. Here I found *Sterna anæsthesia* and *S. fuliginosa* in fair numbers, though not nearly so numerous as at Goelet Island. The former is a small replica of *S. fuliginosa*, but is not quite so black on the neck and back, and the inner web of the middle toe does not reach to the end of it, as in *S. fuliginosa*. *S. fuliginosa* had mostly fresh eggs, and *S. anæsthesia* generally hard-set or young. *S. fuliginosa* always nested in the open, *S. anæsthesia*, more often than not, under stones, rocks, or hidden under tufts of grass. Both these species bred all over the island. This to a certain extent was true of *Anous stolidus*, which was fairly plentiful, but seemed to keep together more than the other two. There was a fair-sized colony of *S. dougalli* here also, but they were most exclusive, keeping quite by themselves, and were much wilder than any of the others. I could not catch *S. dougalli* by hand, all the others I could. These were the only birds on the island, but there were immense numbers of beautiful copper-coloured lizards, which must have taken a heavy toll of the eggs. If I broke one, the lizards found and ate it at once; they were not large enough to take the young birds.

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#### VI.—On the Migration of *Phalaropes* in Montana.

By EWEN SOMERLED CAMERON, F.Z.S.

PREVIOUSLY to the spring of 1899 I had looked upon *Phalaropes* as quite rare in North-eastern Montana, having seen the Red-necked *Phalarope* only once, and Wilson's *Phalarope*

four times, during the last ten years—both species exclusively during June, and in very small numbers.

On May 21st of the present year an extraordinary invasion of Phalaropes occurred, and examples of both the above-named birds continued to arrive in greater or less numbers until the end of the month. At first the Red-necks predominated, and Mr. H. Tusler, whose ranch adjoins mine on the south and who was the first to observe their advent, brought me three specimens of *Phalaropus hyperboreus* on the date above mentioned, shot, as he informed me, out of at least three hundred birds, which included (as I subsequently learned) a few of *P. wilsoni*. All the birds were swimming about in shallow lakes, formed by the recent rains, on the prairie. The relative numbers of the two species were subsequently reversed, for, the main flight of Red-necks having passed, only a few were afterwards seen sprinkled among the Wilson's Phalaropes, which continued to arrive daily in considerable flocks. These later flocks were, however, less in size than the immense flight of *P. hyperboreus* described by Mr. Tusler, which I unfortunately missed.

Both species frequented the temporary ponds formed by the abundant rains in the depressions of grass-lands, but seemed to shun the regular creeks and water-holes altogether.

I procured several specimens for skins, a task of small difficulty, as the birds were so tame and showed so little fear that, when some members of the flock were shot, the remainder would make two or three big circles and alight on the water beside their dead companions. Similarly, when a Marsh-Hawk hovered above them, they made equally wide sweeps, and descended on the same place from which they had arisen.

At the moment of alighting they were so thickly disposed that a large number might have been killed by one shot, but immediately after reaching the surface of the water they scattered in all directions over the pond. Their tameness was indeed remarkable. When I forced them to rise, either on foot or horseback, they merely flew around me to alight again; and in some marshy ground on the ranch I was able to drive two females of *P. wilsoni* to where my wife waited

with a camera, while the much smaller male stood close to her, as if he well understood that our intentions were peaceful.

It was hoped that the Wilson's Phalaropes which frequented our ranch would remain to breed, as they were in a secluded spot, where no disturbance reached them; but although they seemed well pleased with their surroundings, by June 4th all had departed.

The Wilson's Phalaropes, both when feeding and when disturbed and circling on the wing, constantly uttered a low croaking, which at close quarters might be compared to the much louder note of Sand-hill Cranes, or, at a distance, to the faintly-heard barking of a dog. On the other hand, I have heard them give a shrill and totally different call of indecision or satisfaction on their first arrival, when hovering above a pool.

Both species gave the impression of extraordinary activity as they fed greedily on a species of gnat which swarmed close to the surface of the water. To catch these gnats they swam about with incredible swiftness, moving their necks from side to side, or backward and forward, incessantly.

In every flock of Wilson's Phalaropes the females greatly outnumbered the males, and to say that the latter were less richly coloured hardly expresses the difference between them.

By the side of the gay-plumaged females the males appeared insignificant dark grey birds, with white underparts; and only on a very close inspection could the faint chestnut wash on the neck and the indistinct white stripe of the nape be detected. It can hardly be supposed that all of the great number examined through binoculars at close range were immature examples.

Among males of *P. hyperboreus* both young and adult individuals were noticed, several of the latter approximating in some degree to the more gaily-dressed females.

The stomachs of the Phalaropes examined contained minute stones, grass, and the black gnats above alluded to, mashed to a pulp. The eggs in the ovaries of the females were extremely small, not much larger than pin-heads; in only one was there an egg the size of a pea.

In the Red-necked Phalaropes the bill was black, the

irides hazel, and the legs and feet slate-blue; but the Wilson's Phalaropes had the bill and legs black and the irides brown. A female of the last-named weighed  $2\frac{1}{2}$  ounces.

The measurements in inches of a male and female of each species are here given:—

		Length.	Extent.	Wing.	Tail.	Bill.	Tarsus.	Naked leg to end of middle toe.
<i>Phalaropus wilsoni</i> , ♀	..	9	16	5	2	$1\frac{3}{8}$	$1\frac{1}{4}$	3
<i>Phalaropus wilsoni</i> , ♂	..	8	14	$4\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{4}$	1	$2\frac{5}{8}$
<i>Phalaropus hyperboreus</i> , ♀		$7\frac{1}{4}$	13	$4\frac{1}{2}$	2	$\frac{7}{8}$		
<i>Phalaropus hyperboreus</i> , ♂		7	$12\frac{1}{3}$	4	$1\frac{7}{8}$	$\frac{7}{8}$		.

In addition to the Phalaropes, great numbers of Stints (*Tringa minutilla*) and a single Hudsonian Godwit (*Limosa hudsonica*) passed; in fact, such an invasion of birds has not been seen here since the memorable flight of Buzzards (*Buteo swainsoni*) in 1890.

I obtained the above-mentioned Godwit, which was a female in transition plumage, and the only specimen I have ever seen in the north-west. Of this bird, Coues says: "Not noted W. of the Rocky Mts., and apparently not common anywhere in the U.S."

Terry, Montana,  
Sept. 1st, 1899.

## VII.—*An Ornithological Expedition to the Zambesi River.*

By BOYD ALEXANDER, F.Z.S.

(Plate I.)

[Continued from 'The Ibis,' 1899, p. 583.]

### 72. CRATEROPUS JARDINII (Smith).

We first met with this bird near Zumbo, on the right bank of the river. It consorted with *C. kirki*, but was not nearly so plentiful, and was easily recognizable by its much larger size. Unlike the latter, the specimens shot at the end of November were in a moulting condition, the new feathers of the nape and mantle having dark-brown centres.

The cry is louder and more harsh, if anything, than that of *C. kirki*.